CLAIMS

A system of high-speed and bulk backup comprising:

 a backup object disk whereon a backup object data to be stored;
 a backup disk whereon the backup object data to be compressed and stored;
 an input/output unit, wherein the command including backup operating

 commands is input and the results from the predetermined command is output;

a backup means, wherein a volume of data on said backup object disk is divided into a predetermined size of unit data, a plurality of threads running several flows within a process are generated and thereby said divided unit data is sequentially compressed and stored onto said backup disk; and

a central processing unit, wherein the backup operating command supplied through said input/output unit is processed for implementing a backup using said backup means.

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2. The system of high-speed and bulk backup of claim 1 comprising:

a backup master module, wherein the backup operating command supplied through said input/output unit and central processing unit is received and transmitted to a backup manager module;

a backup manager module, wherein a backup operating command required for implementing a backup is received from said backup master module and thereby the backup reservation information for each volume is managed, a backup status and backup history information for each volume is collected and managed, and the backup command for a disk volume according to a backup schedule is generated;

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a backup agent module, wherein a backup command is supplied from said backup manager module and thereby the volume of data on said backup object disk is divided into a predetermined size of unit data, a plurality of threads running

several flows within a process are generated and thereby said divided unit data is sequentially compressed and stored onto said backup disk.

- 3. The system of high-speed and bulk backup of claim 1, wherein said unit data is divided with 20~25 Mbytes when the block size for division is multiplied by the number of blocks.
- The system of high-speed and bulk backup of claim 1,
 wherein said backup means implements a volume backup by dividing the
 whole volume of said backup object data through accessing to a raw device regardless of the type of file, and then by compressing into a plurality of threads, in case a backup object data stored in said backup object disk has more than one hundred thousand files.
- 5. The system of high-speed and bulk backup of claim 1, wherein said backup means implements a file backup by dividing said backup object data into the unit of file, and then by compressing into a plurality of threads, in case a backup object data stored in said backup object disk has less than one hundred thousand files.

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- 6. A system of high-speed and bulk backup comprising:
- a backup master server including a backup master module receiving a backup operating command; and
- a backup manager server including a backup object disk whereon the backup object data is stored, a backup disk whereon the backup object data is compressed and stored, a backup manager module wherein the backup operating command required for backup operation is received from said backup master server and thereby the backup command for a volume of disk is generated according to a backup schedule, and a backup agent module wherein according to the backup

commands supplied from said backup manager module, the volume of data on said backup object disk is divided into a predetermined size of unit data, a plurality of threads running several flows within a process are generated, and thereby said divided unit data is sequentially compressed and stored onto said backup disk.

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- 7. The system of high-speed and bulk backup of claim 6, wherein said predetermined size of unit data is divided with 20~25 Mbytes when the block size is multiplied by the number of blocks.
- 10 8. The system of high-speed and bulk backup of claim 6,
 wherein said backup manager server implements a volume backup by
 dividing the whole volume of said backup object data through accessing to a raw
 device regardless of the type of file, and then by compressing into a plurality of
 threads, in case a backup object data stored in said backup object disk has more than
 one hundred thousand files.
 - 9. The system of high-speed and bulk backup of claim 6, wherein said backup manager server implements a file backup by dividing said backup object data into the unit of file, and then by compressing into a plurality of threads, in case a backup object data stored in said backup object disk has less than one hundred thousand files.
 - 10. A system of high-speed and bulk backup comprising: a backup master server including a backup master module receiving a backup operating command;
 - a plurality of backup manager servers including a backup object disk whereon the backup object data is stored, and a backup manager module wherein the backup operating command required for backup operation is received from said

backup master server and thereby the backup command for a volume of disk is generated according to a backup schedule, and

a plurality of backup agent servers including a backup disk whereon the backup object data is compressed and stored, and a backup agent module wherein according to the backup command supplied from said backup manager module, the volume of data on said backup object disk is divided into a predetermined size of unit data, a plurality of threads running several flows within a process are generated, and thereby said divided unit data is sequentially compressed and stored onto said backup disk.

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- 11. The system of high-speed and bulk backup of claim 10, wherein said predetermined size of unit data is divided with 20~25 Mbytes when the block size is multiplied by the number of blocks.
- 15 12. The system of high-speed and bulk backup of claim 10,
 wherein said backup agent server implements a volume backup by dividing
 the whole volume of said backup object data through accessing to a raw device
 regardless of the type of file, and then by compressing into a plurality of threads, in
 case a backup object data stored in said backup object disk has more than one
 20 hundred thousand files.
 - 13. The system of high-speed and bulk backup of claim 10, wherein said backup agent server implements a file backup by dividing said backup object data into the unit of file, and then by compressing into a plurality of threads, in case a backup object data stored in said backup object disk has less than one hundred thousand files.
 - 14. A method of high-speed and bulk backup comprising the steps of:

receiving the compression object disk information and the directory information to be stored;

driving a plurality of compression threads;

dividing and reading block index values supplied from said compression object disk on a plurality of driven compression threads;

reading each data block belong to the block index read for each compression thread;

compressing simultaneously for said each data block read on a plurality of said compression threads;

storing the data blocks compressed to a storage directory for a plurality of compression threads;

judging whether there exist more data blocks to be compressed, increasing the block index if there exist more data blocks to be compressed, then interrupting to read said data block;

finishing a plurality of threads if there exist no data blocks to be compressed; and

completing a backup by ensuring that compression of all data blocks is completed.

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